

EAI COMPUTER SCIENCE AND EDUCATION IN COMPUTER SCIENCE (CSECS)

20th ANNUAL INTERNATIONAL CONFERENCE

Final Program

June 28th – 30th, 2024

All times are in EEST — Eastern European Summer Time, UTC/GMT +3 hours, Bulgaria

Venue: 1618 Sofia, Bulgaria 21 Montevideo Str., Building 1, Room 310

<https://maps.app.goo.gl/2fQ4uS7eXa7vSTdF6>

Link for online participants:

<https://meet.jit.si/EAICSECS2024>

Please, pay attention to the time difference between Bulgaria, Romania, Boston, USA, Germany, India, Portugal, and China

Eastern European Summer Time (EEST) (UTC/GMT+3), Bulgaria

Eastern Daylight Time (EDT) (UTC/GMT -4), Boston, USA

Central European Summer Time (CEST) (UTC/GMT +2), Germany

China Standard Time (CST), (UTC+8), Beijing, China

India Standard Time (IST) (UTC/GMT +5:30), Delhi, India

Western European Time (WET) (UTC+1), Portugal

Timetable

28 June 2024, Friday

2:00 pm – 3:00 pm, On-site registration with coffee break

3:00 pm - 3:30 pm

Welcoming Remarks from the Rector of New Bulgarian University

Prof. Tanya Zlateva, Dean of Metropolitan College, Boston University

Lenka Vatrtova, European Alliance of Innovation, General Sponsor

Prof. Ivan Landjev, New Bulgarian University, General Chair of CSECS 2024

3:30 pm – 4:00 pm

Prof. Vassil Vassilev, London Metropolitan University

The History of the Department of Informatics at New Bulgarian University

Session Computer Science Implementations

Chairs: Prof. Zlateva, Prof. Tuparov

4:00 pm – 4:15 pm Radu-Ioan Ciobanu (University Politehnica of Bucharest), Bucur, Stefania (National University of Science and Technology POLITEHNICA Bucharest), Ciobanu, Radu-Ioan (University Politehnica of Bucharest); Raducan, Gabriela (Titu Maiorescu University), Dobre, Ciprian (National University of Science and Technology POLITEHNICA Bucharest)

Taxi Application over Peer-to-Peer Mobile Networks

4:15 pm – 4:30 pm Eugene Pinsky (Metropolitan College, Boston University), Taratynova, Darya (Nazarbayev University), Kassenova, Assel (Metropolitan College, Boston University), Dauletbayev, Bissenbay (SDU University), Al-Shedivat, Muammar (UvU Shuttle)

A Predictive Model of Arrival Times for Smart Shuttle Buses in Astana, Kazakhstan

4:30 pm – 4:45 pm Balcheva, Ivelina (New Bulgarian University), Yassen Gorbounov (New Bulgarian University)

Enabling Autonomy through Voice Control: AI-Assisted Mobile Platform

Session Computational Math

Chairs: Prof. Zlatev, Assoc. Prof. Gorbounov

4:45 pm – 5:00 pm Eric Braude (Boston University), Seth Gorrin (Boston University)

MaRz: A Fast, Transparent Fuzzy Machine Learning Technique

5:00 pm – 5:30 pm Coffee Break

5:30 pm – 5:45 pm Lasko Laskov (New Bulgarian University), Nikolova, Ivon (New Bulgarian University)

Segmentation and Data Extraction from Carte du Ciel Astrographic Maps

5:45 pm – 6:00 pm Ivan Landjev (New Bulgarian University), Kurz, Sascha (Bayreuth University), Rouseva, Assia (Sofia University)

Quadratic Sets and $(3 \bmod 5)$ -arcs in $PG(r,5)$

6:00 pm – 6:15 pm Eugene Pinsky (Metropolitan College, Boston University), Pattnaik, Sarthak (Metropolitan College, Boston University), Kathleen Park (Metropolitan College, Boston University)

The Periodic Table: Chemical Properties and Mendeleev meets Physical Properties and Machine Learning

Session Implementations in Medicine

Chairs: Prof. Pinsky, Assoc. Prof. Laskov

6:15 pm – 6:30 pm Farshid Alizadeh (Boston University)

Assessment of Segmentation Models on Panoramic Radiographic Dental Images

6:30 pm – 6:45 pm Georgi Kostadinov (New Bulgarian University), Naidenov, Alexander (Medical University of Sofia)

3D Cycle-consistent Adversarial Network for Designing Dental Implant Crown

6:45 pm – 7:00 pm Vijay Kanabar (Boston University), D'Costa, Kenisha (Boston University)

Eliminating Risk involved in using ChatGPT for Clinical Decision Support System

7:00 pm – 7:15 pm Dimitrova, Iva (South-West University "Neofit Rilski", Blagoevgrad, Bulgaria), Zashev, Borislav (South-West University "Neofit Rilski", Blagoevgrad, Bulgaria), Traykov, Metodi (New Bulgarian University), Trenchev, Ivan (University of Library Studies and Information Technologies, Sofia, Bulgaria), Mavrevski, Radoslav (South-West University "Neofit Rilski", Blagoevgrad, Bulgaria)

Innovative Approaches for the Mental Development and Education of Children with Autism through Mixed Reality

8:00 pm Official dinner, Restaurant "The School", 38A Montevideo Str., 1618 Sofia

<https://maps.app.goo.gl/L7bwGRLUNznueBVG9>

29 June 2024, Saturday

2:30 pm – 3:00 pm Coffee Break and informal meetings

Session Education in Computer Science

Chairs: Prof. Braude, Assoc. Prof. Traikov

3:00 pm – 3:15 pm Elissaveta Gourova (New Bulgarian University), Antonova, Albena (Sofia University - FMI), Gourov, Nikolay (New Bulgarian University)

Digital transformation in primary and secondary education in Bulgaria

3:15 pm – 3:30 pm Alex Elentukh (Boston University), Motipally, Shravan (Boston University), Kustra, Jacob (Boston University), March, Toby (Boston University)

Building a Chatbot to Adopt an Effective Learning Strategy for Graduate Courses in Computer Science

3:30 pm – 3:45 pm Georgi Tuparov (New Bulgarian University)

Impact of the Self-training over Formative Assessment in SQL part of University Database Course

3:45 pm – 4:00 pm Eugene Pinsky (Metropolitan College, Boston University), Izbassova, Gulzira (Metropolitan College, Boston University), Minhaj, Syeda (Metropolitan College, Boston University)

Teaching and Learning Python by Comparative Visualization

4:00 pm – 4:15 pm Rossitza Goleva (New Bulgarian University and Interconsult Bulgaria Ltd.), Kosmanis, Theodoros (International Hellenic University), Tziourtzioumis, Dimitrios (International Hellenic University), Katranas, George (Cerca Trova Ltd.), Zaneta Stasiskiene (Kaunas Technical University, Lithuania), Arianna Azzellino (Politecnico Milano, Italy)

An Interdisciplinary Approach in Education of Master Students in Intelligent Sustainable Habitats

Session Computing Technologies

Chairs: Prof. Elentukh, Assoc. Prof. Goleva

4:15 pm – 4:30 pm Latchezar Tomov (New Bulgarian University), Petkov, Presian (New Bulgarian University), Markov, Emanuil (IQVIA)

Large Language Models for identification of medical data in unstructured records

4:30 pm – 4:45 pm Dobromir Dinev (New Bulgarian University)

Impact of the iteration length on the software quality

4:45 pm – 5:00 pm Mateeva, Gergana (IICT-BAS), Keremedchiev, Delyan (New Bulgarian University), Kopanov, Kalin (IICT-BAS); Varbanov, Velizar (IICT-BAS), Todor Balabanov (IICT-BAS)

Double-Stranded Differential Evolution and Particle Swarm Optimization with LibreOffice Nonlinear Programming Solver

5:00 pm – 5:15 pm Coffee Break

5:15 pm – 5:30 pm Vijay Kanabar (Boston University), Kaloyanova, Kalinka (Sofia University)

Cross-Continental Insights: Comparative Analysis of Using AI for Information System Stakeholder Analysis in Undergraduate Courses in the EU and USA

5:30 pm – 5:45 pm Eugene Pinsky (Metropolitan College, Boston University), Minfei, Liang (Metropolitan College, Boston University)

Analyzing the Geometric Ratios of Greek Vases

Session Engineering Implementations

Chairs: Prof. Kanabar, Prof. Tuparov

5:45 pm – 6:00 pm Yoana Ivanova (New Bulgarian University)

Applications of Simulation Modeling and Computer Visualizations for Studying Structured Crystals for Implementation in Technical Devices

6:00 pm – 6:15 pm Nuzhat Prova (Pace University)

A Novel Weighted Ensemble Model to Classify the Colon Cancer from Histopathological Images

6:15 pm – 6:30 pm Danting Wang (Wuhan University of Technology), Tang, Yi (Wuhan University of Technology)

Research on Video Service Effect of University Libraries Based on User Information Behavior Data: Taking Bilibili Platform as an Example

6:30 pm – 6:45 pm Yassen Gorbounov (New Bulgarian University), Chen, Hao (China University of Mining and Technology)

Harnessing Programmable Logic for Quaternion Multiplication

6:45 pm – 7:00 pm Nuzhat Prova (Pace University)

Empowering Breast Cancer Detection: A Novel Hybrid Transfer Learning Approach with Aquila Optimizer

7:00 pm – 7:15 pm Abebe Alamnie (Bahir Dar University)

Utilizing Deep Learning to Detect Religious Discrimination in Amharic Text Posts and Comments on Social Media

7:015 pm – 7:30 pm

Closing Remarks, Round Table Discussion

Prof. Zlateva, Prof. Landjev, Lenka Tatrtova